Selecting Grass Varieties

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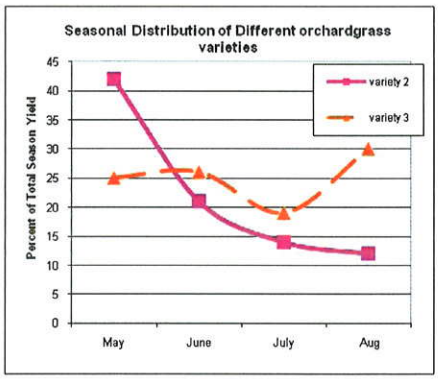
1) **Select high yielding varieties to get up to 4 t/a additional yield per year**
   a. Check UW Extension publication A1525 Forage Variety Update for Wisconsin.
   b. Check website for more detail (http://www.uwex.edu/ces/forage/).
   c. Traditional species to avoid:
      i. Smooth bromegrass - high yield but 60 to 70% of yield in first cutting with little rest of season.
      ii. Timothy - short lived (2 to 4 years) and lowest yielding grass.

2) **Select tested varieties to ensure adequate winterhardiness** (brown rectangles in trials shown at right are orchardgrass varieties with insufficient winterhardiness).

Winterhardy vs winterkilled orchardgrass varieties

3) **Select medium to late maturity varieties** (cheap seed is early varieties that head before alfalfa is ready to cut). Some varieties head out up to *two weeks later* than others.



4) **Select a variety with more consistent yield throughout growing season** (variety with a β greater than -2 from forage website (http://www.uwex.edu/ces/forage/).

5) **Select orchardgrass, tall fescue, and meadow fescue varieties with rust resistance** – rust will reduce yield and reduce animal intake. Rust is orange particles that coat shoes in July and August when walking through fields.

Rust Infected

Rust Resistant

Alfalfa Grass Mixtures in Dairy Rations

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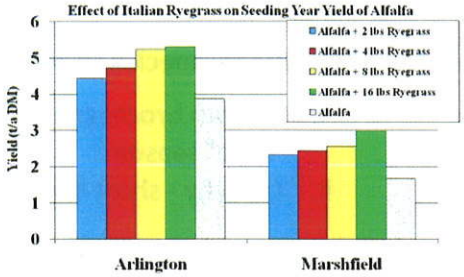
Benefits of mixing grass with alfalfa:

1) 30 to 40% grass mixed with alfalfa gives equal or higher yields than pure stands of alfalfa
   a. Improved yield in seeding year.
   b. Better yield in later years if alfalfa injured by winter, insects, disease.



2) Alfalfa grass mixtures provide stand and yield over broader range of environmental conditions.
   a. Grass remains in low spots were water stands.
   b. Grass may not suffer winterkill.
   c. Suffer less traffic damage and tolerate manure application better.
3) If grass grows in later part of season, may widen harvest window.
4) 30% grass mixed with alfalfa dries faster than pure alfalfa.
5) Alfalfa-grass mixtures provide greater erosion control than pure alfalfa stands.
6) Alfalfa-grass mixtures produce more palatable haylage than pure alfalfa.
7) Adding some grass to alfalfa stands may benefit the dairy ration by lowering NFC because grass has less NFC.
   a. Higher total fiber with grass/legume mixtures but faster rate of digestion of grass NDF.
   b. Reduce lameness associated with too much nonfiberous carbohydrate (NFC).

Potential Milk Losses Due to Lameness				
Locomotion Score	2 (Mild)	3 (Moderate)	4 (Severe)	5 (Severe)
DM Intake Reduction, lb/d	1	3	7	15
Milk Yield Loss, lb/d	0	5	15	30
Adapted from P. Robinson, UC Davis Cooperative Extension				

20 to 25% of milking cows are mildly to seriously lame in Midwest United States *(Cook, Oetzel and Nordlund, 2003).* This results in increased veterinary bills and reduced milk production (see table).**Causes:** 58 % due to disease or trauma, ***42% due to nutrition (excessive grain and/or inadequate fiber).***

   c. Faster grass fiber digestion may allow increased NDF in ration without reducing intake or milk production.
   d. Possible good fit with high NFC diets (i.e. high corn silage diets).